

## CLAIMS

1. A method of producing a transgenic cell comprising introducing into a cell a  
5 non-primate lentiviral expression vector comprising a nucleotide of interest (NOI).
2. A method according to claim 1 wherein the non-primate lentiviral expression  
vector is derived from EIAV, FIV, BIV, CAEV or MVV.
- 10 3. A method according to claim 1 or 2 wherein the expression vector is  
introduced in vivo or ex vivo.
4. A method according to claim 3 wherein the cell is in utero.
- 15 5. A method according to claim 4 wherein the cell is a prenatal cell.
6. A method according to claim 5 wherein the cell is an embryonic cell.
7. A method according to claim 6 wherein the cell is a fetal cell.
- 20 8. A method according to any preceding claim wherein the cell is capable of  
giving rise to a germ line change.
9. A method according to claim 8 wherein the cell is a germ cell.
- 25 10. A method according to claim 8 wherein the cell is involved in gametogenesis.
11. A method according to any one of claims 8 to 10 wherein the cell is an oocyte,  
an oviduct cell, an ovarian cell, an ovum, an oogonium, a zygote, an ES cell, a  
30 blastocyte, a spermatocyte, a spermatid, a spermatozoa, or a spermatogonia.

12. A method according to any preceding claim wherein the cell is from an animal, or a yeast.
13. A method according to claim 12 wherein the cell is from a non-human organism.
14. A method according to claim 12 wherein the cell is mammalian.
15. A method according to claim 12 wherein the cell is a murine, human, porcine, bovine, simian, ovine, equine, avian, insect or reptile or piscine cell.
16. A method according to claim 12 wherein the cell is from *C. elegans* or *drosophila*.
17. A method according to any preceding claim wherein the lentiviral expression vector is pseudotyped.
18. A method according to any preceding claim wherein the lentiviral expression vector does not contain any functional accessory genes.
19. A method according to any preceding claim wherein the NOI is operably linked to a constitutive, tissue-specific or an inducible promoter.
20. A method according to any preceding claim wherein the NOI encodes a therapeutic protein, is an antisense oligonucleotide, or encodes a ribozyme.
21. A method according to any preceding claim wherein the lentiviral expression vector is introduced into the cell via the umbilical cord, placenta, or amniotic fluid, uterus, gonads, or by intraperitoneal or intrahepatic administration.

22. A method according to claim 21 wherein the lentiviral expression vector is introduced into a cell in utero via the umbilical cord, placenta, or amniotic fluid, or by intraperitoneal or intrahepatic administration.

5 23. A transgenic cell produced by the method of any preceding claim.

24. A transgenic organism which is generated from or obtainable by generation from a transgenic cell as defined in any preceding claim.

10 25. A transgenic organism according to claim 24 wherein the NOI is expressed in a haematopoietic cell, (including monocytes, macrophages, lymphocytes, granulocytes, or progenitor cells of any of these); endothelial cell, tumour cell, stromal cell, astrocyte, or glial cell, muscle cell, epithelial cell, neuron, fibroblast, hepatocyte, astrocyte, kidney, liver, heart or lung cell.

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